

The disease has to be distinguished from diphtheria and syphilitic ulceration of the tonsils. This is readily done by the bacteriological examination of the throat exudate. The treatment consists in painting the throat twice daily with tincture of iodine, which is almost a specific, and clears up the local inflammation in a few days.

Experimental Measles.—HEKTOEN (*Journal of Infectious Diseases*, March 1, 1905, p. 238) reviews the literature on the experimental production of measles in man from the first recorded attempt by Francis Home, of Edinburgh, in 1758, to the present date, and concludes that where positive results were obtained sufficient care was not taken to exclude the possibility of the disease having been contracted in the usual way.

With the consent of two subjects he sought to transmit the disease experimentally, and in both instances met with positive results. The procedure was in brief as follows: Blood was obtained from one of the elbow veins of two individuals suffering from measles in the acute stages. Ascites-broth was inoculated with some of this blood and allowed to remain in a thermostat for twenty four hours at a temperature of 37° C. From 4 to 5 c.c. of this inoculated ascites-broth were then injected subcutaneously into two healthy persons, who were in such surroundings that accidental infection was considered impossible. In the first case the blood was obtained from a patient on the fourth day after the appearance of the rash. The subject inoculated, a medical student, developed fever on the thirteenth day, and suffered from an uncomplicated attack of typical measles. In the second case the blood was obtained from a patient thirty hours after the earliest appearance of the rash. The inoculated subject commenced to have fever on the eleventh day, and on the fourteenth day a typical measles rash appeared.

The blood cultures from both of the original cases remained sterile so far as bacteria demonstrable by the usual methods were concerned.

Hektoen states that the experiments permit the conclusion that the virus of measles is present in the blood of patients with typical measles, sometimes at least during the first thirty hours of the eruption; further, that the virus retains its virulence for at least twenty-four hours when such blood is inoculated into ascites-broth and kept at 37° C. He asserts that the demonstration shows that it is not difficult to obtain the virus of measles unmixed with other microbes and in such form that it can be studied by various methods.

A Case of "Splénomégalic" or "Myelopathic" Polycythæmia with True Plethora and Arterial Hypertonia without Cyanosis.—F. PARKES WEBER (*Lancet*, May 13, 1905, p. 1254) reports such a case occurring in a Jewish woman, aged thirty-seven years, who first came under observation in July, 1903, for acute erythromelalgia of the left foot. The case differed from those of splenomegaly accompanied by polycythæmia reported by Vaquez, Saundby and Russell, Rosengart, Osler and others, in that cyanosis was not present. The cutaneous blood-vessels were somewhat overfilled, however. The splenic enlargement was not marked, the border being felt one to two fingers' breadth from the costal margin. The red cells ranged between 8,016,000 per c.mm., the lowest to 10,960,000 per c.mm., the highest count. Normoblasts were present. There was usually a leukopenia. The relative percentage of polymorphonuclears was very high, ranging between 66 and 81 per

cent. The hæmoglobin was between 120 and 184 per cent. The blood pressure and total volume of red cells were both increased. There was also a striking increase in the specific gravity and viscosity of the blood. With the exception of improvement in the associated erythromelalgia treatment had practically no effect on the patient's condition.

From a study of a case previously reported by the writer, in which an autopsy was obtained, the opinion is expressed that the disease is always accompanied by and at all events mainly due to an excessive pathological activity in the bone-marrow. This was evidenced by the extensive conversion of yellow into red bone-marrow. Weber thinks the high percentage of polymorphonuclears in the present case is confirmatory of this view.

The sequence of events in these cases and their causal connection is believed by the writer to be as follows: 1. Increased erythroblastic activity involving a great part but not necessarily the whole of the bone-marrow. 2. Increased viscosity of the blood resulting from the polycythæmia. 3. Dilatation of small bloodvessels, partly to lessen resistance to the abnormally viscous blood, partly to make more room for dilution of the blood. 4. The "plethora vera," or "polyhæmia," is probably to be regarded as an attempt to compensate for the increased viscosity of the blood and for the excessive percentage of the total blood volume occupied by the cells. 5. The arterial hypertonia is to be regarded as a result of the greater strain thrown on the circulatory system. 6. Cyanosis, when this occurs, is probably due to inadequacy of the series of compensatory changes, which, according to his view, precedes it.

The enlargement of the spleen is held to be due to the plethora vera rather than to excessive functional activity in attempting to compensate for the excessive production of red corpuscles by increased destruction. Weber thinks that the association between the polycythæmia and the erythromelalgia may have been merely an accidental one, although he calls attention to the fact that a similar association has been noted in cases reported by Türck and W. Weintraud.

SURGERY.

UNDER THE CHARGE OF

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Cases Illustrating Alternative Operations for Intestinal Obstruction.
—BARKER (*British Medical Journal*, April 8, 1905, p. 756) in the first case opened the distended bowel above the obstruction (growth of the cæcum), allowing the contents to escape, after which an ileocolostomy was done, short-circuiting the obstruction. At the end of six weeks,